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# Regulations Affecting Generators and Transporters Under RCRA (Resource Conservation and Recovery Act), Sections 3002 and 3003; Explanation of Revisions in Reporting Burden Estimates (40 CFR 262 and 263)

(U.S.) Environmental Protection Agency
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# BACKGROUND DOCUMENT

## REGULATIONS AFFECTING GENERATORS AND TRANSPORTERS UNDER RCRA, SECTIONS 3002 and 3003

## Explanation of Revisions in Reporting Burden Estimates (40 CFR 262 and 263)

This document (ms. 1941.31) provides background information and support for EPA's hazardous waste regulations

U.S. ENVIRONMENTAL PROTECTION AGENCY
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16. Abstract (Limit: 200 words) This document is one of a series providing support for regulations issued by the U.S. Environmental Protection Agency (EPA) under Subtitle C of the Resource Conservation and Recovery Act (RCRA). The regulations represent the initial effort for nationwide control of hazardous waste from point of generation, through transportation, treatment, and storage, to point of ultimate disposal.

This document covers the reporting burden placed on generators and transporters of hazardous waste.

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## Notice

The attached document was prepared by one or more contractors under the guidance of EPA. It is printed here largely as received from the contractor; the Agency has not yet completed reviewing it.

Because of the lead time necessary to produce this study, it was necessary to base it on a preliminary draft of the final regulations. There were some changes made later to the regulations. Thus this document unavoidably does not completely correspond to the regulations finally promulgated. The Agency is currently analyzing the effect of the late regulatory changes on the findings of this study.

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## SUMMARY

The Resource Conservation and Recovery Act (RCRA) program is designed to control hazardous waste flow from the generator to disposition facility. The paperwork involved is to document the generation, transportation, and disposal of hazardous wastes so that liability for mishandling can be established.

The RCRA program regulations were first proposed in the Federal Register in April and December 1978. More than forty formal meetings and hearings were held with interested groups. The list of organizations and individuals consulted numbers well over 1,000. EPA is currently under a court order to implement the program by September 1980. The regulations are being issued as final rules in phases as per the court order.

In February 1980, the Environmental Protection Agency submitted to the Office of Management and Budget a clearance request for the reporting and recordkeeping requirements of Sections 3002 and 3003 of RCRA. These provisions cover most of the documentation requirements imposed on generators and transporters. At submission this February, companion regulations defining hazardous wastes to be covered by RCRA were not yet completed. Thus, a burden imposed on generators and transporters could only be estimated at the time. Definitions for what constitutes hazardous wastes have now been largely agreed upon. New definitions largely exclude waste amounts for plants generating at a rate of under 1,000 kilograms per month, significantly reducing previous estimates of reporting burdens. This document amends the previous submission based on revised estimates.

The universe of persons and organizations potentially affected is 66,895. A previous estimate of the paperwork burden under EPA's draft regulations for this universe was 1,700,000 hours ($22.8 million). We estimate the total burden involved in these final regulations to be 589,406 hours ($7,750,345).

The Department of Transportation is issuing regulations to cover most of the manifest process for hazardous wastes. EPA estimates that this additional burden be 342,000 hours ($4.1 million).

## LEGAL REQUIREMENTS

### What the Law Requires

The Resource Conservation and Recovery Act (P.L. 94-580) signed into law on October 21, 1976, establishes a Federal program which will provide cradle to grave regulation of hazardous wastes. The Act requires EPA to identify the characteristics of hazardous waste and to list particular wastes as hazardous (Section 3001). EPA is also required to establish standards for hazardous waste management applicable to Generators (Section 3002) and Transporters (Section 3003) of hazardous waste as well as to treatment, storage and disposal Facilities (Section 3004). Waste Generators, Transporters and Facilities must notify EPA that they plan to handle hazardous wastes (Section 3010), and treatment, storage and disposal Facilities must also receive an EPA permit to operate (Section 3005). EPA is given the authority to enter a hazardous waste establishment and inspect samples and records (Section 3007). If violations are found, EPA has the authority to enforce the provisions of the Act and its regulations through appropriate civil and criminal proceedings (Section 3008).

EPA is also to help States develop hazardous waste mangement programs and can authorize States, upon application, to administer and enforce a hazardous waste program in lieu of EPA (Section 3006), and funds have been appropriated to this end (Section 3011). No State can impose less stringent regulations concerning hazardous waste than EPA (Section 3009).

Requirements of Generators. Section 3002 of the Resource Recovery and Conservation Act requires that EPA establish regulations covering Generators of hazardous waste, to include:

- Recordkeeping practices to identify accurately:
  - the quantities of hazardous waste generated
  - any significant constituents of the waste
  - disposition of the waste
- Labeling practices to identify accurately the waste
- Furnishing of information on the general chemical composition of hazardous waste to Transporters and disposal Facilities
- Use of a manifest system to assure that all waste

generated is designated for a permitted facility

- Submission of reports at times determined by the EPA Administrator setting out:
  - the quantities of waste identified under the Act during a particular time period
  - the disposition of all such hazardous waste.

EPA was required to provide an opportunity for public comment and promulgate regulations under this section within 18 months of the date of enactment, or by April 1978.

Requirements of Transporters. Section 3003 of the Resource Conservation and Recovery Act requires that EPA establish regulations covering Transporters of hazardous waste, to include:

- Recordkeeping concerning:
  - hazardous waste transported
  - source of waste
  - delivery points of waste
- Transportation of waste only if properly labeled
- Compliance with the manifest system established under Section 3002.
- Delivery of waste only to a permitted facility.

EPA was also required to coordinate regulations covering Transporters with the Department of Transportation's regulations under the Hazardous Materials Transportation Act and to recommend additional materials to be covered by that Act.

EPA was required to provide an opportunity for public comment and promulgate regulations under this section within 18 months of the date of enactment, or by April 1978.

## The Court Order

The Environmental Protection Agency was required by statute to promulgate rules and regulations under the Resource Conservation and Recovery Act of 1976 by April, 1978. The Agency did not meet this deadline. In mid-1978, the State of Illinois filed suit against the Environmental Protection Agency seeking to speed up promulgation of the regulations. Other groups joined Illinois in this effort. The case was heard by Judge Gessell of the District Court for D.C. who ruled on January 3, 1979, that EPA should have its regulations in place by December of 1979. Although Judge Gessell recognized he had no enforcement tools and that the Congress should properly use its oversight and budgetary powers to follow up on its own legislation, he took the case on a Court of Appeals decision. Following the January 3rd decision, EPA realized it would be unable to meet the December deadline. The Court permitted EPA to draw up an order setting targets for promulgation of the final regulations. The order, filed by Judge Gessell on December 18, 1979, (Illinois v. Costle CA #78-1689 et al. (DDC 12/18/79)) established the following deadline for promulgation of the regulations:

February, 1980 - Section 3002, Section 3003, and Section 3010.

April, 1980 - Sections 3001, parts of Section 3004, Section 3005, and Section 3006.

September, 1980 - The remaining parts of Section 3004.

The Environmental Protection Agency has scheduled its issuance of hazardous waste regulations to comply with Judge Gessell's court order.

## THE REGULATORY SYSTEM

### Description of the Program

Following is a brief summary of how the hazardous waste control system will operate. The determination of whether a waste is a hazardous waste is made by first consulting the list of hazardous wastes in Part 261. If the waste is not listed, a determination for each of the characteristics in Part 261 is made by either testing (using the procedures in Part 261) or by applying known information about the characteristics of the waste based on the process or materials used. This submission does not include the actual testing as burden under the Federal Reports Act but does include the burden for retaining test results.

Generators must, prior to transporting, treating, storing or disposing of the hazardous waste, obtain an EPA identification number. This number will be assigned by the Agency upon receipt of the generator's hazardous waste notification under Section 3010. Generators who did not notify under Section 3010 (e.g., new generators) may obtain an EPA identification number by submitting EPA form 8700-12 to the Administrator. The reporting and recordkeeping burdens associated with obtaining an EPA identification number were submitted to OMB for clearance in 1979 and have not been included again in this clearance request.

Generators who treat, store, or dispose of hazardous waste on-site need comply only with the requirement to determine whether their wastes are hazardous. These generators are considered in the category of treatment, storage and disposal activities and will be regulated under Sections 3004 and 3005 of the Act. Recordkeeping and reporting requirements under these Sections will be submitted to OMB separately.

Before offering hazardous waste for transportation, a generator is responsible for complying with appropriate Department of Transportation Hazardous Materials transportation regulations. These include making a determination of the DOT proper shipping description and appropriately packaging, labeling, mar-

king, and placarding the waste and the waste movement. The generator must also prepare a manifest which includes his name, address and EPA identification number as well as that of the designated facility and the name and EPA identification of each transporter. The manifest also must include the DOT proper shipping description, the volume of weight shipped and the size and the number of containers in the movement.

The manifest consists of an original and at least the number of copies which will provide the generator, each transporter, and the permitted facility with one copy each, in this case an original and three copies. Signatures may be handwritten, carbon copies, or photocopies. Before releasing the waste to the initial transporter, the generator must sign the manifest, certifying that all the requirements for transportation have been met. He must also obtain the transporter's signature and the date of signature indicating that he has accepted the load described on the manifest on that particular day. The generator retains the original or a copy of the manifest and gives the initial transporter the remaining copies.

The transporter carries the manifest with the waste to the designated facility. If delivery to the designated facility (or alternate facility) is impossible, the transporter must contact the generator for further instructions.

Upon delivery of the hazardous waste to the designated facility, the owner or operator will sign and date the manifest to indicate that the facility has accepted the waste and will give one signed copy to the transporter and keep one copy. These copies must be kept by the transporter and the facility for three years from the date of acceptance of the waste by the initial transporter.

The above regulations pertaining to the manifest system are primarily based on the Department of Transportation's regulations covering hazardous materials. DOT and EPA have closely coordinated the promulgation of these regulations.

This submission identifies EPA requirements which are over and above those to be issued by the Department of Transportation. Because EPA is piggy-backing on DOT regulations the only additional requirements in the EPA regulations are the inclusion on the manifest of EPA identification number for the generator, transporters, and facilities; and the addition of the words "and EPA" as part of the certification.

Once delivery of the hazardous waste is completed, the representative of the designated facility is required to return a signed copy to the generator within 35 days of receipt of the waste. If the generator has not received the signed copy within 35 days of acceptance by the initial transporter, the generator must contact the transporter and/or the designated facility to determine the status of the load and the manifest. If within 45 days of acceptance by the initial transporter the generator has not received a signed copy he must file an Exception Report with the Regional Administrator. The Exception Report consists of a copy of the manifest and a covering letter which describes the generator's efforts to locate the load and the manifest. In the case where the generator is assured that the movement has been delivered but the manifest was lost, the generator is still required to submit the Exception Report noting in the cover letter that the manifest was lost. If a facility other than the primary or alternate designated facility returns the manifest, an Exception Report must be filed.

The generator must keep a copy of the original manifest and all Exception Reports for at least three years from the date of acceptance by the initial transporter.

Each generator who ships hazardous waste off-site must file an Annual Report on EPA form 8700-13 no later than March 1 for the preceding calendar year. The Annual Report lists the facilities used by the generator for the treatment, storage or disposal of hazardous waste and the wastes each facility received. The

generator must include the DOT hazard class and EPA waste description for each waste.

In addition to these requirements, special requirements for international shipments of hazardous wastes are also established. International shipments are covered by the manifest system and Exception Reports are likewise required. In addition for those generators shipping waste abroad, EPA must be notified two weeks in advance of the first such shipment in each year.

Generators which accumulate wastes on a temporary basis (for 90 days or less) are required to note the date such accumulation begins on the container or tank being used.

Note that there may be amendments to the regulations in Parts 262 and 263 based on changes resulting from revisions to Part 261 which has not yet been issued in final form. Considerations to be resolved in Part 261 are: 1. whether the threshold level for compliance with RCRA requirements should be raised even further (this submission assumes the level will be set at 100 kg of waste per month); 2. whether waste oil will be considered as a hazardous substance; and 3. whether transporters which consolidate small amounts of waste (under 100 kg) will be covered. Each of these changes would reduce the number of firms required to comply with the regulations and would thus reduce the reporting and recordkeeping burden on the public. This submission assumes a "worst case" and estimates the paperwork burden without consideration of these potential reductions which may well be included.

Justification-Practical Utility Considerations

The Resource Conservation and Recovery Act resulted in part from a finding of the Congress that "disposal of solid waste and hazardous waste in or on the land without careful planning and management can present a danger to human health and the environment." Congress was concerned that hazardous waste presented special dangers to health, thus requiring a greater degree of regulation than non-hazardous solid waste. The Act focuses on establishing criteria for facilities which can dispose of hazardous waste through a permit system and making generators responsible for insuring their waste disposed of off-site reaches such permitted facilities. There was a concern that some carriers might dispose of the hazardous waste en route or at sites which were not equipped to handle hazardous waste.

The manifest system. The use of manifest system is required by RCRA which states that EPA shall establish requirement respecting "use of a manifest system to assure that all such hazardous wastes generated is designated for treatment, storage, or disposal in treatment, storage, or disposal facilities (other than facilities on the premises where the waste is generated) for which a permit has been issued . . ." The manifest system permits the generator to track the waste from its site to the disposal facility to insure that none is disposed of in a way that would endanger health or the environment. In designing its manifest system, EPA has piggy-backed on the system already in use by the Department of Transportation with one critical difference. The Department of Transportation regulations do not require the return of the manifest to the generator as confirmation that the shipment has been delivered. Because the generator must know when and where its waste ends up, EPA requires the disposal facility to return a signed copy of the manifest to the generator within 35 days. By using a largely pre-existing system and not requiring additional forms, EPA has been able to minimize the information burden on the public. EPA regulations had only a few minor requirements to the DOT manifest. These are: the addition of EPA identification

numbers for the generator, transporters, and facility named on the manifest, and the words "and EPA" to be added to the end of the existing certification statement. The need for the identification numbers ties into Section 3010 of the Act which states that "no identified or listed hazardous waste subject to this subtitle may be transported, treated, stored, or disposed of unless notification has been given as required under this subsection." The EPA identification number, assigned after this notification has been given, serves several purposes. First, it insures that those involved in the hazardous waste management process are in compliance with the law. Secondly, it assists in the identficiation of firms for the purposes of tracking hazardous waste shipments through the transportation system and to assist EPA in its enforcement efforts. Note that the identification numbering system used by EPA will be the Dun and Bradstreet universal numbering system with which firms are already familiar.

Exception reporting. In order to enforce the provisions of the law and insure that shipments were delivered as required, EPA initially considered requiring that a copy of each manifest be forwarded to the Agency. However, it was quickly realized that the Agency had inadequate resources to deal with this flood of paperwork. The Agency then considered a quarterly report covering all manifests outstanding at the end of the quarter, but realized that this would require reporting from many firms which may have only recently shipped their wastes and would not be expected to have received the confirmation of delivery from the facility. Based on these considerations, EPA has designed an exception reporting system to highlight only those instances where special action on the part of the Agency might be required. EPA considers that most hazardous wastes should be delivered within several weeks after shipment and provides for a 35-day period for the facility to return a confirmation copy of the manifest. Generators are expected to begin follow-up procedures if they have not received confirmation within the 35-day period. EPA then gives the generators 10 days to track down the disposition of the hazardous waste and,

only if the manifest is still outstanding after 45 days is an Exception Report required. EPA has attempted to minimize the burden imposed by exception reporting; no special form is required, merely a copy of the manifest still outstanding together with a brief letter explaining what steps the company has taken to locate the missing shipment. These Exception Reports will be reviewed by EPA as the basis for possible enforcement actions.

Annual report. RCRA requires generators to submit reports to the Administrator "setting out the quantities of hazardous waste identified or listed under this subtitle that he has generated during a particular time period; and the disposition of all hazardous waste reported." Little is known about the generation, transportation, and disposal of hazardous waste. In order for EPA to both fulfill the reporting requirements established by law and intelligently evaluate the effectiveness of its hazardous waste management regulations, EPA needs to know what hazardous wastes are being generated, in what quantities, where they are being generated, and how they are being shipped. In addition to providing information for planning and evaluation, periodic reporting by generators can help in setting priorities for enforcement activities in much the same way as the Internal Revenue Service identifies tax returns for audit. Generator reports will indicate those firms which are reporting much less hazardous waste than is typical for other firms of their size in a particular industry; and can also show up any major increases or decreases in hazardous waste generation as a potential area for investigation. Initially, EPA is only requiring reporting on an annual basis rather than quarterly or semi-annually. The Agency plans to fully evaluate the annual reporting requirement after the first two such reports are received (mid-1982) to determine whether any burden-reduction changes in the format are appropriate and whether some kind of sampling procedures could be instituted without affecting either enforcement or program planning data.

Recordkeeping. The Act calls for the establishment of "record-keeping practices that accurately identify the quantities of such hazardous waste generated, the constituents thereof which are sig-

nificant in quantity or in potential harm to human health or the environment, and the disposition of such wastes." In response to the Act, EPA is requiring that generators maintain record concerning their determination of hazard (i.e., test results, waste analyses), copies of each manifest and any Exception Reports to show the waste was properly disposed of, and copies of their annual report to EPA. Initially, EPA is requiring that these records be maintained for three years to provide an appropriate record trail to be used in the event of enforcement proceedings. EPA plans to review the 3-year requirement in the future in terms of actual program experience.

International shipments. International disposition of hazardous waste is largely regulated by treaty agreements with other Nations, such that the United States must request permission before shipping wastes into other countries. Although EPA will handle the contact with foreign governments, generators are asked to notify EPA two weeks in advance of their intent to export waste. This notification is only needed for the first shipment of a waste to a particular country in each year. No special form is required, merely a letter identifying the waste and the foreign country. EPA's initial requirements called for each generator to directly seek permission from foreign government agencies for each shipment. By having EPA handle the international contact and reducing the frequency of such contacts to annual for each waste, the burden of this requirement has been significantly reduced.

## CONSULTATION OUTSIDE EPA

The Environmental Protection Agency made every effort to consult with the public and appropriate federal agencies during the development of the hazardous waste regulations. This effort started in November, 1976, immediately after the law was enacted and well before the first regulations were published for comment. On May 2, 1977, EPA published an Advance Notice of Proposed Rulemaking (42 FR 22332) notifying the public of their intent to develop regulations under the Resource Conservation and Recovery Act. On April 28, 1978, proposed standards applicable to transporters of hazardous waste were published (43 FR 18506). By that time, EPA had already held a series of 13 public meetings with a total attendance of over 1,000 people and had reviewed the draft regulations with representatives from the public, public interest groups, State and local governments, transporters, generators, and disposers of waste. On June 20, 1978, EPA held a joint hearing with the Department of Transportation on standards applicable to transporters in Alexandria, Virginia. Five additional public hearings, in which DOT participated, followed.

Proposed regulations on standards applicable to generators of hazardous waste appeared for public review and comment in the Federal Register of December 18, 1978 (43 FR 58969). The Agency subsequently held five public hearings on these proposals. In February, 1979, hearings were held in New York, N. Y.; St. Louis, Missouri; and Washington, D.C. In March, 1979, additional hearings were held in Denver, Colorado; and San Francisco, California. EPA received a substantial number of written comments in addition to those received at the hearings. The public comment period closed for regulations applicable to generators on March 16, 1979. Comments received by EPA at its hearings, in consultation with other parties, and by letter, were carefully considered in terms of two criteria, first - the need to establish a hazardous waste management program consistent with the intent of Congress and the Resource Conservation and Recovery Act. Second, to develop requirements which implement the Act with a minimum burden on those affected and the business community. As a result of comments received, EPA has made a number of modifications to its original regulations which

significantly reduce the reporting and recordkeeping burden imposed on the public.

Coordination with the Department of Transportation

At the request of EPA, the Department of Transportation is modifying their hazardous materials regulations to ensure consistency with hazardous waste transportation requirements established by the Resource Conservation and Recovery Act. These modifications basically expand coverage of the existing hazardous materials regulations to cover hazardous wastes shipped both inter- and intra-state. The revised regulations were published for comment by DOT on May 25, 1978. Bot DOT and EPA have agreed on the principles of a Memorandum of Understanding between the two agencies stating that DOT will have the primary enforcement responsibility for the regulations affecting transporters of hazardous materials, although EPA reserves the right to also remain involved.

## CONSIDERATION OF ALTERNATIVES TO REDUCE REPORTING BURDENS

The Environmental Protection Agency has attempted to minimize reporting and recordkeeping burdens imposed on the public by its hazardous waste regulations. As part of this process, EPA has analyzed a series of alternatives and selected approaches to reduce private sector cost while maintaining the integrity of the program envisaged by Congress. The major alternatives considered by EPA are summarized below with a more detailed listing following.

Selection of material for coverage. A significant part of the compliance burden relates to the type of materials which must be tracked and recorded from generation through ultimate disposition. EPA has exempted pesticides used by farmers from coverage under the Act provided certain criteria are met. This exemption eliminates 92,000 farmers who would otherwise be required to comply with RCRA requirements. In addition, EPA is considering specifically deleting waste oil as a hazardous waste which would relieve approximately 78,000 waste oil generators from compliance with RCRA requirements. However, because this decision has not been finally made, waste oil generators are included in the estimates of burden contained elsewhere in this submission.

Selection of generators for coverage. EPA has given special consideration to reducing the regulatory burden for smaller generators of hazardous waste. At this time, firms generating or shipping 1000Kg or less of hazardous waste in a month are exempt from the regulations. This reduces the number of generators affected by 563,000.

Eliminating duplication with other federal regulations. EPA has closely coordinated its development of hazardous waste regulations with the Department of Transportation's regulations on packaging and shipping hazardous materials and reporting any spills. The DOT regulations prevail for transporters and some are incorporated by reference in the EPA regulations. All differences have been minimized and the only additional requirements imposed by EPA regulations are for an EPA identification number on the manifest for firms involved in generating,

transporting and disposing of hazardous waste. Some substances which are subject to regulation under other acts are excluded from coverage by EPA. These include: industrial waste water discharges which are point sources subject to permit under the Clean Water Act, special nuclear or by-product material defined by the Atomic Energy Act, and point source air emissions regulated under the Clean Air Act.

Eliminating duplication with State regulation. The Resource Conservation and Recovery Act calls for close coordination of federal and State regulatory programs. EPA will encourage the authorization of States to operate their own hazardous waste programs to eliminate any unnecessary duplication or overlap between federal and State requirements. States which are so authorized will carry out the program in lieu of the federal program and the private sector will not be subject to two separate sets of regulatory requirements.

Eliminating duplication with normal operating procedures. Although RCRA must, by law, impose new requirements, EPA has made efforts to minimize the disruption of normal operating procedures. An example is the manifest system for tracking wastes from "cradle to grave." The manifest was initially conceived by EPA as a separate required form. After public consultation, EPA has agreed to permit the use of normal manifest documents-merely requiring the addition of certain minimal information. In addition, EPA formally required the original of the manifest to accompany the shipment, which meant the prepartion of a separate Bill of Lading where the original was required to be left with the generator. EPA has modified this requirement so that the manifest can also serve as a Bill of Lading, thus eliminating the necessity for 1.3 million additional documents per year.

Use of standard identification numbers. EPA received several comments from the public concerning the additional burden of ever-increasing different identification numbers used by federal and State agencies. To minimize this burden, EPA has selected the Dun and Bradstreet data universal numbering system as a uniform national identification numbering system. These numbers are already

entered in business recordkeeping systems and should facilitate compliance with EPA regulations.

Cutting unnecessary information requirements. EPA has carefully reviewed information requirements to delete any that appear unnecessary at this time. It must be remembered, however, that RCRA is a new Act and the number of generators, amounts of waste, and possible behavior of those involved in waste disposal is as yet unknown. An example of a modification to cut unnecessary reporting is found in the exception reporting system. Initially. exception reports were to be provided on a quarterly basis by all generators with any manifests outstanding. This would have required reports from many generators whose manifests might only have been outstanding for several days. Shifting to an exception reporting system on actual overdue manifests has both reduced the number of potential exception reports and improved EPA's enforcement ability.

## CHANGES THE ENVIRONMENTAL PROTECTION AGENCY HAS MADE TO DECREASE THE REPORTING AND RECORDKEEPING BURDEN

Standards Applicable to Generators of Hazardous Waste

1. Generators who ship waste to a treatment facility outside the United States need no longer inform the foreign government having jurisdiction over the designated facility.

2. Generators shipping waste to a treatment facility outside the U.S. need no longer send a copy of the manifest to the appropriate regulatory agency of the foreign country within one week of the shipment. Now the Generator merely notifies EPA of its intent to export waste two weeks before the first shipment of each waste in a given year.

3. The Generator is no longer required to give the transporter the original together with copies of the manifest. Now the Generator can keep the original and need only provide copies to the transporter. This permits the Generator to use Bills of Lading for the manifest. Bill of Lading rules require that the original remain with the shipper.

4. The manifest is no longer required to contain the address of each transporter, merely the name and EPA identification number. The manifest need no longer contain the EPA name for wastes where the DOT proper shipping name is "not otherwise specified."

5. The manifest need no longer contain the EPA characteristic or property of the waste where the DOT hazard class is "other regulated materials."

6. The statement "in the event of a spill contact the National Response Center, U.S. Coast Guard 800-424-8802 for emergency assistance," is no longer required on the manifest.

7. The sections formerly required on the manifest -- "special handling instructions", "additional comments" -- are no longer required.

8. On the manifest, the certification that the materials are properly classified, packaged, and labeled no longer need contain the full name "U.S. Environmental Protection Agency" and can now contain the letters "EPA."

9. The requirement that all Generators file a quarterly report describing shipments for which confirmation of delivery was not received has been eliminated. Instead, only those Generators who have not received confirmation within 45 days must file a report (Exception Report) with EPA.

10. The Exception Report previously required an official EPA form. Now all that is required is a copy of the manifest together with a cover letter describing actions taken to locate the missing shipment.

11. Generators were required to initiate follow up action on manifests outstanding for a period of 30 days. Now they can wait for 35 days before initiating such action, thus decreasing the number of follow ups that may be required.

12. The annual report required the name and common code of each hazardous waste appearing on the manifest or delivery document under "shipping description." The common code requirement is no longer part of the annual report.

13. The annual report was required within 30 days after the closing date of the year. Now, Generators have two months in which to assemble the necessary data and submit the report.

14. The following requirement pertaining to testing of materials to determine their hazard have been deleted:

"Generators who determine that their waste is not hazardous shall repeat the necessary evaluation or testing when there is a significant change in their feed materials or operations which may alter the test results."

"A Generator of solid waste which is listed by EPA and who has demonstrated that his waste is not hazardous shall repeat the necessary testing annually in addition to repeating it under the circumstances described above."

"If a waste is found or declared to be hazardous, all applicable data (including test results, if available) shall be reported to the EPA Regional Administrator."

15. When assigning an identification number to Generators (and Transporters) EPA will use the existing Dun's number in lieu of a separate EPA numbering system. This should eliminate the need for Generators and Transporters to maintain a separate numbering system.

16. Originally, EPA anticipated that a copy of every manifest would be forwarded to the Agency. This initial plan has been dropped and manifests only need to be forwarded if required by the exception reporting requirements described above.

17. Regulations applying to Generators were initially structured based on the outline of requirements contained in the Act. Final regulations have been reorganized to progress logically in the order in which the Generator must act, and have been assigned a separate CFR part number. In addition, provisions which are more properly addressed in other parts of the final rule have been moved to those parts. Thus, the public should be able to more easily understand and follow the regulations in their new format.

18. In the initial regulation, only English units of measure were listed. EPA, in response to public comment, no longer specifies that English units are required and Metric measures may also be used on the manifest.

19. The initial regulation required that the Generator either describe on the manifest what immediate action should be taken in the event of a discharge of hazardous waste or provide a 24-hour telephone number where additional information could be obtained. In order to eliminate overlap and potential inconsistency with other regulatory provisions under the Hazardous Materials Transportation Act and the Clean Water Act, EPA has deleted any specific requirement for including discharge response information on the manifest.

20. Exception reporting requirements have been revised to reflect the special circumstances involved in international shipment. For international transport, exception reports are not required until confirmation of delivery is outstanding for 90 days. Previously there was no distinction made for

exception reporting on international shipments.

Standards Applicable to Transporters of Hazardous Waste

1. The proposed regulations were originally patterned on the outline of the requirements identified by Section 3003 of the Act. The final regulations have been reorganized to progress logically in the order in which the Transporter must act and should be easier to understand and follow in this new format. In addition, the regulations have been assigned a new code of federal regulations part number and subjects which more properly belong in another section have been moved to that section.

2. Transporter identification numbers assigned by EPA will be from the Dun and Bradstreet Data Universal Numbering system which is already in existence as a uniform national identification numbering system. Thus, Transporters will not have to establish any additional set of identification numbers in their information and recordkeeping systems.

3. EPA's regulations have been made consistent with those of the Department of Transportation to avoid the establishment of duplicative or conflicting requirements with respect to hazardous waste transport. The overwhelming majority of comments received by DOT and EPA on the transportation regulations call for the establishment of a single set of regulations to be administered by the Department of Transportation. With the exception of EPA's identification numbers and the inclusion of the word EPA on the manifest or shipping papers, the two sets of regulations are consistent. In the EPA Section 262 regulations, however, certain DOT regulations are singled out as of particular importance. However, Transporters are warned in a note to the regulations that both sets of regulations apply to their activity.

4. The Department of Transportation will issue in March regulations to incorporate hazardous wastes as coming under their jurisdiction and to expand their coverage from interstate carriers to intra and interstate carriers.

## RCRA REQUIREMENTS BEING SUBMITTED FOR CLEARANCE

- Manifest Requirements
- Exception Reporting
- Annual Report
- Recordkeeping Requirements
- International Shipments

MANIFEST REQUIREMENTS

The incremental manifest requirements imposed by EPA (over and above those contained in DOT regulations) are underlined in 262.21.

§262.21 Required Information

(a) The manifest must contain all of the following information:

(1) A manifest document number;

(2) The generator's name, mailing address, telephone number, and EPA identification number;

(3) The name and EPA identification number of each transporter;

(4) The name, address, and EPA identification number of the designated facility and an alternate facility, if any;

(5) The description of the waste (e.g., proper shipping name, class, hazardous materials identification number, if required, and additional information) required by regulations of the U.S. Department of Transportation in 49 CFR 172.101, 172.202, and 172.203;

(6) The total quantity of each hazardous waste by units of weight or volume, and the type and number of containers.

(b) The following certification must appear on the manifest: "This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and EPA."

## EXCEPTION REPORTING

Regulations pertaining to exception reporting are reproduced below. Note that no specific form or format is required.

### §262.42 Exception Reporting

(a) A generator who does not receive a copy of the manifest with the handwritten signature of the owner/operator of the designated facility or his agent within 35 days of the date the waste was accepted by the initial transporter must contact the transporter and/or the designated facility to determine the status of the movement.

(b) A generator must submit an Exception Report if he has not received a copy of the manifest with the handwritten signature of the owner/operator of the disignated facility or his agent within 45 days of the date the waste was accepted by the initial transporter. The Exception Report must include:

(1) A legible copy of the manifest for which the generator does not have confirmation of delivery;

(2) A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate that movement and the results of those efforts.

ANNUAL REPORT

Regulations pertaining to the Annual Report are reproduced below; the report form and instructions are contained in the following pages.

§262.41 Annual Reporting

(a) A generator who ships his hazardous waste off-site must submit Annual Reports:

(1) On EPA form 8700-13, according to the instructions on the form (See the Appendix to this Part).

(2) To the Regional Administrator for the Region in which the generator is located;

(3) No later than March 1 for the preceeding calendar year;

(b) Any generator who treats, stores, or disposes of hazardous waste on-site must submit an Annual Report covering those wastes in accordance with the provisions of 40 CFR Parts 264 and 265.

lease print or type | designed for elite type (12 characters/inch).

Form Approved OMB No. 2000XX

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

# HAZARDOUS WASTE ANNUAL REPORT

*(Collected under the authority of Section 3002 of RCRA.)*

II. IDENTIFICATION NUMBER

OFFICIAL USE ONLY *(date received & reviewer)*

REVIEWER'S NAME

I. NAME OF BUSINESS

III. BUSINESS REPRESENTATIVE
A. NAME
B. TELEPHONE NUMBER *(area code & no.)*

IV. BUSINESS ADDRESS *(street or route no., city, & zip code)*

V. TYPE OF REPORT
- ☐ A. GENERATOR
- ☐ B. FACILITY
- ☐ C. UNMANIFESTED

VI. CLOSING DATE *(Mo., Day, Yr.)*

## VII. WASTE INFORMATION *(continue on reverse if necessary)*

| A. 25 IDENTIFICATION NUMBER | B. INTERNATIONAL SHIPMENT (mark 'X') | C. WASTE DESCRIPTION | | | | | | | | | | | | | | | | | D. AMOUNT OF WASTE | E. UNIT OF MEASURE (enter code) | F. DENSITY (enter number) | G. HANDLING CODE (enter code(s)) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1. DOT HAZARD CLASS (mark 'X') | | | | | | | | | | | | | | | 2. EPA | | | | | | |
| | | a. COMBUSTIBLE | b. CORROSIVE | c. ETIOLOGIC AGENT | d. EXPLOSIVE A | e. EXPLOSIVE B | f. FLAMMABLE GAS | g. FLAMMABLE LIQUID | h. FLAMMABLE SOLID | i. IRRITATING AGENT | j. NON-FLAMMABLE GAS | k. ORGANIC PEROXIDE | l. OTHER | m. OXIDIZER | n. POISON A | o. POISON B | p. RADIOACTIVE | ENTER THE EPA WASTE CODE(s) IF AVAILABLE, OTHERWISE, ENTER THE EPA HAZARD CLASS CODE(s) *(see instructions)* | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | |
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| 10 | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | |
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| 13 | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | |
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| 21 | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | | | | |

## VII. WASTE INFORMATION (continued from front)

| IDENTIFIER | IDENTIFICATION NUMBER | B. INTERNATIONAL SHIPMENTS (Mark 'X') | C. WASTE DESCRIPTION — 1. DOT HAZARD CLASS (mark 'X'): a. COMBUSTIBLE | b. CORROSIVE | c. ETIOLOGIC AGENT | d. EXPLOSIVE A | e. EXPLOSIVE B | f. FLAMMABLE GAS | g. FLAMMABLE LIQUID | h. FLAMMABLE SOLID | i. IRRITATING AGENT | j. NONFLAMMABLE GAS | k. ORGANIC PEROXIDE | l. OTHER | m. OXIDIZER | n. POISON A | o. POISON B | p. RADIOACTIVE | C. 2. EPA — ENTER THE EPA WASTE CODE(s) IF AVAILABLE, OTHERWISE, ENTER THE EPA HAZARD CLASS CODE(s) (see instructions) | D. AMOUNT OF WASTE | E. UNIT OF MEASURE (enter code) | F. DENSITY (enter number) | G. HANDLING CODE (enter code(s)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | |

## VIII. COMMENTS

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## IX. CERTIFICATION

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

SIGNATURE

NAME (type or print)

DATE SIGNED

General Instructions:

(1) Print clearly using using ink or type (this form was prepared to be used with an elite (12 characters per inch) typwriter.)
(2) Read all instructions before starting to complete the form.

ANNUAL REPORT FOR GENERATORS WHO SHIP HAZARDOUS WASTE OFF-SITE

Instuctions:

I. IDENTIFICATION NUMBER

Enter your 12 digit EPA identification number (also enter this number in the appropriate box on the reverse of this form).

II. NAME OF BUSINESS

Enter the name of your business, organization, or agency.

III. BUSINESS REPRESENTATIVE - NAME

A. Print the first name, middle initial, and last name of the business representative who can answer questions regarding information on this form.

III. TELEPHONE NUMBER

B. Enter the phone number, including area code, for the business representative identified in III-A.

IV. BUSINESS ADDRESS

Enter the address where the hazardous waste described on this report was generated.

V. TYPE OF REPORT

Generators who ship hazardous waste off-site must put an "X" in the box labeled "GENERATOR."

VI. REPORT DATE

Enter the calendar year for which this report is submitted. The reporting year for hazardous waste shipped off-site is January 1 through December 31.

VII. WASTE INFORMATION - (for hazardous waste generated and shipped off-site during the reporting year.)

Column A: Enter the 12 digit EPA identification number for the designated facility to which each hazardous waste identified in column "C" was sent. If hazardous waste was sent to the same designated facility identified on the preceding line, you may print "same" in place of the 12 digit EPA identification number.

Column B: For INTERNATIONAL SHIPMENTS sent to foreign countries mark an "X" in column "B."

Column C-1: For all hazardous waste shipped off-site put an "X" in the box (A through P) which corresponds to the appropriate DOT Hazard Class of that particular waste.

Column C-2: If four or less EPA listed wastes are included in the waste identified in column "C-1", enter the four digit EPA waste list number(s) from 40 CFR Part 261 for the listed waste(s) you identified under §262.11. If more than four EPA listed wastes are included in the waste identified in column "C-1", enter 0000 in the last four boxes and iden-

tify the fourth and subsequent EPA listed wastes and the appropriate line number in the Comments section of this report.

If the waste identified in column "C-1" is not an EPA listed waste, enter the four digit EPA Waste Characteristic Number(s). (Characteristics of hazardous waste are established in 40 CFR Part 261.)

Column D: AMOUNT OF WASTE

Enter the amount of waste described on that line under column "C-1."

Column E: Enter the code for the unit of measure for the corresponding amount entered in column "D". The units of measure which are allowed are shown the table below:

| Unit of Measure | Code | Required Density |
|---|---|---|
| Pounds | P | none |
| Short Tons | T | none |
| Gallons (U.S.) | G | Pounds per Gallon |
| Cubic Yards | Y | Tons per Cubic Yd. |
| Kilograms | K | none |
| Tonnes | M | none |
| Liters | L | Kilograms per Liter |
| Cubic Meter | C | Tonnes per Cubic Meter |

Column F: (Complete this column only if the corresponding unit of measure used in column "F" was "Gallons (U.S)", Cubic Yards, Liters, or Cubic Meters.)
Enter the appropriate density of waste described in column "C-1." If decimal points are required, use one box for the decimal point. If the waste described in column "C-1" is given in units of Gallons (U.S.), Cubic Yards, Tonnes, or Liters, the density used in column "F" must be based on the corresponding "Required Density" in the table.

Column G: LEAVE BLANK

VIII COMMENTS:

Generators who ship hazardous waste off-site must use the Comments section to:

1. List the EPA identification number of each transporter whose services were utilized during the reporting year;
2. Identify the name and address of foreign treatment, storage, or disposal facilities;
3. Identify the fourth and subsequent EPA waste list numbers of five or more wastes which were mixed together to make the waste described in column "C-1";
4. Other comments as may be appropriate.

## RECORDKEEPING REQUIREMENTS

Regulations pertaining to recordkeeping requirements are reproduced below.

### §262.40 Recordkeeping

(a) A generator must keep a copy of each manifest signed in accordance with §262.23(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

(b) A generator must keep a copy of each Annual Report and Exception Report for a period of three years.

(c) A generator must keep records of any test results, waste analyses, or other determinations made in accordance with §262.11 for not less than three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

## INTERNATIONAL SHIPMENTS

Regulations pertaining to international shipments are reproduced on the next page. The incremental areas of burden for international shipments are identified by brackets, and include:

- notification of EPA prior to the first international shipment to each country in each year; and

- preparation of a second exception report if the waste is not delivered in 90 days.

## §262.50 International Shipments

(a) Any person who exports hazardous waste to a foreign country or imports hazardous waste from a foreign country must comply with all the requirements of this Part and with the special requirements of this section.

(b) When shipping hazardous waste outside the United States the generator must:

(1) Notify the Administrator in writing two weeks before the initial shipment of hazardous waste to a each country in each calendar year. The waste must be identified by its DOT shipping description;

(2) Require that the foreign consignee confirm the delivery of the waste in the foreign country. A copy of the manifest signed by the foreign consignee may be used for this purpose;

(3) Meet the requirements under §262.21 for the manifest for international movements, except that:

(i) In place of the name, address, and EPA identification number of the designated facility, the name and address of the foreign consignee must be used;

(ii) The generator must identify the point of departure from the United States through which the waste must travel before entering a foreign country.

(c) A generator must comply with the Exception Report requirements of §262.42, if:

(1) He has not received a copy of the manifest signed by the transporter stating the date and place of departure from the United States within 45 days from the date it was accepted by the initial transporter; or

(2) Within 90 days from the date the waste was accepted by the initial transporter, the generator has not received written confirmation from the foreign consignee that the waste movement was received.

(d) When importing hazardous waste, a person must:

(1) Meet all requirements of §262.21 for the manifest except that:

(i) In place of the generator's name, address and EPA identification number, the name and address of the foreign generator and the importer's, name, address and EPA identification number must be used.

(ii) In place of the generator's signature on the certification statement, the U.S. importer or his agent must sign and date the certification and obtain the signature of the initial transporter.

## TIME SCHEDULE FOR DATA COLLECTION

Reporting and recordkeepimg requirements of standards applicable to both generators and transporters are expected to be published as final regulations in February 1980. However, they will not become effective until six months after promulgation of 40 CFR 261 dealing with the identification and listing of hazardous waste. Under the court order, Section 261 must be promulgated by the end of April 1980, thus the regulations are expected to take force by October 1980. The manifest and exception reporting requirements as well as requirements affecting international shipments and for recordkeeping will be effective at that time. The first annual report will not be required until March 1, 1981.

## TABULATION AND PUBLICATION PLANS

Data collected from the Annual Reports required by 40 CFR 262 will be tabulated by computer for use by EPA in its enforcement and internal program planning efforts. In addition, the tabulated data will be used to support the Agency's annual report to Congress. Data collected from the Exception Reports will also be tabulated, but will be used primarily by the enforcement program staff to ensure compliance with RCRA requirements.

The Agency is integrating its tabulation plans for data collected under Parts 262 and 263 with those for the data required by other parts of the RCRA regulations. Thus detailed tabulation plans will not be available until April 1980 when the final version of the remaining regulations has been agreed upon.

## SENSITIVE QUESTIONS

It is not anticipated that EPA information requirements of generators or transporters under RCRA will involve questions of a sensitive nature such as sex behavior and attitudes, religious beliefs, etc. It is anticipated that some generators may wish to maintain the confidentiality of certain information concerning the determination and types of hazardous waste they handle. EPA has provided for this in 40 CFR Part 262.44 which states that information provided to EPA will be available to EPA inspectors (as required under Section 3007 of RCRA) and to the public as authorized by the Freedom of Information Act and EPA's implementing regulations thereunder, but permits generators to make claims of confidentiality of data submitted at the time of the submission.

# REVISED COST REDUCTIONS

## COST REDUCTIONS

The cost of compliance with regulations implementing RCRA Subtitle C (Option B) was estimated by ADL to be $630 million annually for 17 major industries generating hazardous waste. The cost of reporting and recordkeeping for these industries covering 17,774 generators of hazardous waste was estimated to range from $13 to $26 million annually. The ADL study of reporting/recordkeeping costs was supplemented by a report by the Energy Resources Co., Inc. (ERCo) which covered additional generating industries, other than manufacturing. Combining data from both studies, EPA in its RIA report of March 1979, arrived at an estimate that there were about 242,000 establishments generating hazardous waste in excess of 100 kg/mo, and that the cost of compliance with proposed regulations will amount to approximately 2,764,000 burden hours at an annual cost of $39,090,000. Exclusion of the quarterly reporting requirements reduced this figure to 2,407,000 burden hours at an annual cost of $34,417,875. Subsequent estimates by EPA based on statistical data provided by the TRW, Inc. brought these figures down to 2,331,748 burden hours at a cost of $33,026,467 per annum.

Since the incremental costs of reporting/recordkeeping of proposed regulations depend on the size of the generator universe not covered by existing regulations promulgated in the past by various States, Table I presents data on the number of generators in each State having provisions for manifests, recordkeeping, and annual reporting.

According to a study prepared for EPA by WAPORA, Inc. in October 1978, there were approximately 354,000 potential generators of hazardous waste. The study includes all generators, regardless of the quantity of waste they generate. EPA's estimate of the number of facilities generating more than 100 kg/mo of hazardous waste stated in the supporting statement for Section 3010 is approximately 200,000, a figure closely matching the number of 198,628 generators identified in the above category by TRW, and used in subsequent analyses of costs. In order to make the data in Table I applicable to TRW figures we have applied the EPA/WAPORA totals for each State

TABLE I
STATES WITH REGULATIONS AND STANDARDS
APPLICABLE TO HW GENERATION

| tes | Number of Generators | Volume of HW Generated (000 metric tons) | PROVISIONS FOR: Permit | Manifest | Recordkeeping | Reporting | Inspection |
|---|---|---|---|---|---|---|---|
| ifornia | 48,732 | 3,760 | -- | 48,732 | 48,732 | 48,732 | 48,732 |
| rgia | 7,484 | 970 | -- | -- | 7,484 | 7,484 | -- |
| inois | 21,687 | 3,840 | -- | 21,687 | -- | 21,687 | -- |
| sas | 2,741 | 440 | 2,741 | 2,741 | -- | -- | -- |
| tucky | 3,986 | 900 | -- | 3,986 | -- | -- | -- |
| isiana | 4,082 | 1,360 | -- | 4,082 | -- | -- | -- |
| ne | 1,491 | 200 | -- | 1,491 | -- | -- | -- |
| ryland | 4,443 | 840 | 4,443 | 4,443 | -- | -- | -- |
| nesota | 7,236 | 690 | -- | 7,236 | 7,236 | 7,236 | 7,236 |
| souri | 7,868 | 1,479 | -- | 7,868 | -- | -- | -- |
| tana | 1,033 | 60 | 1,033 | -- | -- | -- | -- |
| Jersey | 15,446 | 4,640 | -- | 15,446 | -- | -- | -- |
| Mexico | 1,527 | 80 | 1,527 | 1,527 | 1,527 | 1,527 | 1,527 |
| ) | 12,856 | 3,840 | 12,856 | -- | -- | -- | -- |
| ahoma | 5,588 | 300 | 5,588 | 5,588 | 5,588 | 5,588 | -- |
| gon | 5,408 | 290 | -- | 5,408 | -- | -- | -- |
| e Island | 2,633 | 240 | -- | 2,633 | -- | -- | -- |
| Carolina | 3,073 | 1,350 | -- | 3,073 | -- | -- | -- |
| as | 20,982 | 3,580 | -- | 20,982 | 20,982 | 20,982 | 20,982 |
| ington | 5,718 | 540 | -- | 5,718 | 5,718 | 5,718 | 5,718 |
| | 184,014 | 29,399 | 28,188 | 162,641 | 97,267 | 118,954 | 84,195 |
| U.S. Total | 52.0 | 51.9 | 7.96 | 45.95 | 27.48 | 33.61 | 23.79 |
| TOTAL | 353,942 | 56,700 | 353,942 | 353,942 | 353,942 | 353,942 | |

Sources: TBS, Inc. Economic Impacts of RCRA Approaches to the Regulation of Generators of Small Volumes of Hazardous Wastes, Jan. 5, 1980, p. III-6.
GAO, Hazardous Waste Management Programs Will Not Be Effective: Greater Efforts Are Needed. (Report to the Congress). Washington, D.C., GPO, Jan. 23, 1979, pp. 23-24.
EPA, "Number of Potentially Affected Parties by State and by Category," Table 4, based on WAPORA figures.
EPA, "Summary for States with Manifests Provisions." Prepared by EPA, Dec. 19, 1979

provision to the TRW figure of 198, 628 generators. Using this approach, we found that the number of generators not covered by State provisions is as follows:

| | |
|---|---|
| No provisions in place for manifest: | 107,359 or 54.05% |
| No provisions in place for manifest recordkeeping: | 144,045 or 72.5% |
| No provisions in place for annual reporting: | 131,869 or 66.39% |

Among data relevant to the universe of hazardous waste generating establishments, the statistical compilations prepared by TRW appear to be most appropriate for the analysis of potential cost reductions. The following table identifies the population of generators at various waste generating levels and estimates the frequency of manifests for each level category.

TABLE II

3002: GENERATOR ESTIMATES AND MANIFESTS

| Volume of Waste (Kg/mo) | No. of Generators | Manifests Ann. Frequency | Manifests Number |
|---|---|---|---|
| 100< | 563,127 | 4 | 2,252,508 |
| 100 - 500 | 108,743 | 4 | 434,972 |
| 500 - 1,000 | 22,990 | 4 | 91,960 |
| 1,000 - 2,000 | 15,473 | 4 | 61,892 |
| 2,000 - 5,000 | 11,292 | 6 | 67,752 |
| >5,000 | 40,130 | 45 - 46 | 1,817,424 |
| U.S. Total | 761,755 | | 4,726,508 |
| 100 kg/mo Cutoff | 198,628 | | 2,474,000 |
| 1,000 kg/mo Cutoff | 66,895 | | 1,947,068 |

Source: Based on ADL, Inc. and TRW, Inc. estimates

Table III identifies reduced burden hours and cost of record-keeping/reporting requirements imposed by RCRA.

Estimates

EPA has identified the final threshold level for hazardous wastes which must be reported by generators and transporters. Currently, EPA anticipates that wastes of less than 1,000 kg per month will not be subject to RCRA requirements, although some waste thresholds may be increased and others decreased in the final regulations under Section 3001. While there may be some special wastes with a cut-off lower than 1,000 kg/mo., they will be few and the impact on the generators and transporters will be negligible.

## TABLE III

### 3002: GENERATOR REPORTING/RECORDKEEPING
### 1,000 kg/mo. cutoff
### 66,895 Generators Filing 1,947,068 Manifests Annually

(Calculations include burden hours and costs for 36,157 generators not covered by existing State requirements for manifests and 44,412 generators in States without requirements for annual reporting.)

| Reports/Records | Burden Hours | Costs |
|---|---|---|
| 1. Waste Documentation 1/ | 86,957 | $1,605,360 |
| 2. Manifests 2/ | | |
| Preparation | 103,926 | $1,247,112 |
| Filing | 87,348 | 786,132 |
| Systems | 204,000 | 1,972,000 |
| Total | 395,274 | $4,005,244 |
| 3. Exception Reporting 3/ | 17,451 | $ 401,373 |
| 4. Annual Reporting 4/ | 88,224 | $1,720,368 |
| 5. International Shipments 5/ | 1,500 | $ 18,000 |
| TOTAL - EPA 6/ | 589,406 | $7,750,345 |
| Costs that may be attributable to DOT 7/ | 168,210 | $2,018,520 |

1/ It is assumed that approximately 10 percent of the universe of 66,895 generators will have their waste tested, thus requiring a documentation. ADL estimates the cost of waste documentation to be 13 burden hours at $240.00 per generator.

2/ Costs of manifest preparation per generator were calculated as follows: first manifest at 0.5 hours and subsequent manifests for the same generator at 0.083 hours, at an hourly rate of $12.00. Cost of filing is 0.083 hours per manifest, at an hourly rate of $9.00. The Reports Impact Analyses (EPA - March 1979) attributes no cost to the design of procedures for generators other than those covered by the ADL study of 17 industries. Annual cost for the latter was calculated to be 12 hours at an average hourly rate of $9.67.

3/ Costs for exception reporting have been scaled down from 3 to one hour per report at a cost of $23.00. It is estimated that 17,451 reports will be made annually on manifests of HW heading for off-site facilities.

4/ Annual reports will be required from 44,112 generators not covered by State requirements. The time required for these is 2 hours per generator at an average hourly rate of $19.50.

5/ EPA estimates that there will be 1,000 international shipments. Costs were calculated at 0.5 hours per action and an hourly rate of $12.00.

6/ This amount is the minimum for which EPA is responsible.

7/ Smaller generators may have 4 to 6 manifests annually while large generators in the 5,000 kg/mo or more of HW category may have as many as 200 or more manifests per annum. Figures attributable to DOT represent the difference between the computation of the manifest preparation burden originally proposed by ADL and the averaged burden calculated for 1,052,390 manifests in Footnote 1/.

## 3002: RECORDKEEPING AND REPORTING COSTS
## One-Time and Recurring - 1,000 kg/mo cutoff

| | One-Time | Recurring |
|---|---|---|
| Manifest Preparation | | |
| Burden Hours | --- | 103,926 |
| Cost | --- | $1,247,112 |
| Manifest Filing | | |
| Burden Hours | --- | 87,348 |
| Cost | --- | $ 786,132 |
| Systems Management/Maintenance | | |
| Burden Hours | --- | 204,000 |
| Cost | | $1,972,000 |
| Exception Reporting | | |
| Burden Hours | --- | 17,451 |
| Cost | --- | $ 401,373 |
| Annual Reporting | | |
| Burden Hours | --- | 88,224 |
| Cost | --- | $1,720,368 |
| Waste Documentation | | |
| Burden Hours | 86,957 | --- |
| Cost | $1,605,360 | --- |
| International Shipment | | |
| Burden Hours | --- | 1,500 |
| Cost | --- | $ 18,000 |
| TOTAL | | |
| Burden Hours | 86,957 | 502,449 |
| Cost | $1,605,360 | $7,348,972 |

Analyses of TBS, Inc. data compiled in its January 5, 1980 report on economic impacts of RCRA, together with the TRW data on the universe of generators and the ADL data on costs of compliance, led to the compilation of data summarized in Table III. It includes scaled-down costs for recordkeeping and reporting burdens based on exclusion of generators in States with existing regulations covering same, takes into consideration the cost of waste documentation for 6,689 largest generators (10 percent of generators in the 5,000 kg/mo and above hazardous waste generating level), and accounts for the exclusion of a significant share of manifest preparation cost attributable to the proposed expansion of DOT regulations.

Table IV summarizes costs attributable to foreign shipments which in terms of the total cost appear to be negligible.

TABLE IV
3002: Generator Reporting/Recording
: International Shipments

| | Annl Freqncy | Hours/ Action | Burden Hours | Hourly Rate | Cost |
|---|---|---|---|---|---|
| Shipment Handling | | | | | |
| Shipments/Manifests DOT/EPA | 1,000 | 0.5 | 500 | $12.00 | $6,000 |
| No. of Letters to EPA | 1,000 | 0.5 | 500 | $12.00 | $6,000 |
| Extra Time for Foreign Manifests | 1,000 | 0.5 | 500 | $12.00 | $6,000 |
| TOTAL | | | 1,500 | | $18,000 |
| Spill Reporting | | | | | negligible |
| Recordkeeping | | | | | negligible |
| TOTAL | | | 1,500 | | $18,000 |

Table V identifies costs of recordkeeping and reporting imposed by RCRA regulations on the 5,000 transporters of hazardous waste.

TABLE V

3003: TRANSPORTER REPORTING/RECORDKEEPING
TO BE CONTAINED IN DOT REGULATIONS

| Major Reports/Records | 1,000 kg/mo Cutoff<br>66,895 generators, with 1,947,068 manifests; 5,000 transporters; 54.05 percent of these universes are not covered by State regulations. |
|---|---|
| 1/ Manifest Handling | |
| Burden Hours | 87,348 |
| Cost | $1,048,176 |
| 2/ Development and Supervision | |
| Burden Hours | 32,430 |
| Cost | $ 531,852 |
| 3/ Incident and Spill Reporting | |
| Burden Hours | 1,125 |
| Cost | $ 18,750 |
| 4/ Filing | |
| Burden Hours | 52,619 |
| Cost | $ 473,576 |
| TOTAL | |
| Burden Hours | 173,647 |
| Cost | $2.072.354 |

1/ Calculated at 5 min (0.083 hrs) per 1,052,390 manifests at $12.00/hour.

2/ Assumes that all transporters in states without regulations will need large systems. At 12 hours/ann. - 5,000 x 0.5405 x 12 - 43,240 hours. The annual cost per transporter is $196.80.

3/ ADL estimated 225 incidents/year for the HW from 17 industries involving 3,000 transporters. Thus, for 5,000 transporters:

$\frac{5,000}{3,000} = \frac{x}{225}$ ; x = 375 spills/year. At 3 hours per spill, the burden is 1,125 hours. At $50.00 per spill the cost is $18,750.

4/ Calculated at 3 min. (0.05 hrs) per 1,052,390 manifests at $9.00/hour.

NOTE: Items 1/ and 4/ are EPA/DOT estimates.

Summary

The following table summarizes the proposed minimal recordkeeping and reporting costs associated with EPA's regulations as they impact on generators of hazardous waste.

| | Burden Hours Cutoff 1,000 kg/mo | Cost Cutoff 1,000 kg/mo |
|---|---|---|
| Manifest Record-keeping & Reptg. | 395,274 | $4,005,244 |
| Exception Record-keeping & Reptg. | 17,451 | $ 401,373 |
| Annual Reporting | 88,224 | $1,720,368 |
| Waste Documentation | 86,957 | $1,605,360 |
| International Shipments | 1,500 | $ 18,000 |
| TOTAL | 589,406 | $7,750,345 |

The Department of Transportation plans to issue regulations at the request of EPA to ensure consistency between EPA and DOT requirements and expand the existing rules on the transport of hazardous materials to also cover hazardous wastes. EPA estimates that these additional requirements will impose an additional burden on generators of 168,000 hours ($2.0 million); and on transporters 174,000 hours ($2.1 million).

## EVALUATION PLAN

Our evaluation plan for the paperwork involved in administering the RCRA program is being designed to address uncertainties and take advantage of experiences over the next two years. At that time, we will be fully prepared to seek appropriate modifications to these clearance requests. Indeed, we may seek some modifications in advance of the two years because we will be making evaluations of the program on a continuing basis, with each step being taken as soon as we have the necessary information to make an informed judgement.

There are several reasons why an evaluation plan is important to the RCRA program. First, it is a new program so that our plans and assumptions about how well the various parts of the program will work and interact will be evaluated on the basis of experience. For example, we have not specified the nature or form of records required for materials testing. In the future, we may find such stipulations necessary. Second, there are many uncertainties about the number of people involved and burden estimates. For example, we have used one hour as the time required to make an exception report for a shipment or signed manifest not received. We estimate there will be 17,000 to 39,000 exception reports a year. These numbers are probably a little high, thus overstating the burden. As the program takes hold, exception reporting will probably become less frequent and burdensome. In two years these numbers should change. Third, we can expect still further legislative developments (see appendix 3 ) which will affect how the RCRA program should be run.

The evaluation plan for the RCRA regulatory segments is currently under design. Their evaluation will be completed in five years or required by E.O.12044. The paperwork requirements will be evaluated within two years as required by E.O.12174, and then reevaluated as part of the toal program of the five year work.

The evaluation plan will have a series of steps, each to be taken as soon as the facts are available to make an informal judgment on whether any changes are necessary. The results of the evaluations completed during each year will be included in the annual report to the Congress and the President on the RCRA program.

Included in the evaluation plan will be the following:

1. Extent to which the annual report of generators may be cut by using a sample. Once a file exists of what hazardous wastes each generator produces, annual changes in quantity may be needed as a statistical basis only.
2. Extent to which enforcement can utilized generator reports to flas possible violators by examining reports of minimal hazardous wast generation for this type of plant.
3. Item by item analysis of the practical utility for each data element on the annual report.
4. The desirablity of the exemptions and thresholds for chemicals and waste generators in reducing burden while covering major hazardous waste problems.
5. The appropriateness of three-year record retention requirements in view of needs to support inspection and enforcement activities.
6. The RCRA program and its paper work requirements should be reexamined in light of new and related legislated programs and the impact of State-run hazardous waste programs.

# APPENDIX I

## Resource Conservation and Recovery Act of 1976

## (Public Law 94-580)
## Parts Relating to Generators and Transporters of Hazardous Wastes

Congressional Findings

Section 1002. (a) Solid Waste - The Congress finds with respect to solid waste --

(1) that the continuing technological progress and improvement in methods of manufacture, packaging, and marketing of consumer products has resulted in an ever-mounting increase, and in a change in the characteristics, of the mass material discarded by the purchaser of such products;

(2) that the economic and population growth of our Nation, and the improvements in the standard of living enjoyed by our population, have required increased industrial production to meet our needs, and have made necessary the demolition of old buildings, the construction of new buildings, and the provision of highways and other avenues of transportation, which, together with related industrial, commercial, and agricultural operations, have resulted in a rising tide of scrap, discarded, and waste materials;

(3) that the continuing concentration of our population in expanding metropolitan and other urban areas has presented these communities with serious financial, management, intergovernmental, and technical problems in the disposal of solid wastes resulting from the industrial, commercial, domestic, and other activities carried on in such areas;

(4) that while the collection and disposal of solid wastes should continue to be primarily the function of State, regional, and local agencies, the problems of waste disposal as set forth above have become a matter national in scope and in concern and necessitate Federal action through financial and technical assistance and leadership in the development, demonstration, and application of new and improved methods and processes to reduce the proper and economical solid-waste disposal practices.

(b) Environment and Health - The Congress finds with respect to the environment and health, that -

(1) although land is too valuable a national resource to be needlessly polluted by discarded materials, most solid waste is disposed of on land in open dumps and sanitary landfills;

(2) disposal of solid waste and hazardous waste in or on the land without careful planning and management can present a danger to human health and the environment;

(3) as a result of the Clean Air Act, the Water Pollution Control Act, and other Federal and State laws respecting public health and the environment, greater amounts of solid waste (in the form of sludge and other pollution treatment residues) have been created. Similarly, inadequate and environmentally unsound

practices for the disposal or use of solid waste have created greater amounts of air and water pollution and other problems for the environment and for health;

(4) open dumping is particularly harmful to health, contaminates drinking water from underground and surface supplies, and pollutes the air and the land;

(5) hazardous waste presents, in addition to the problems associated with non-hazardous solid waste, special dangers to health and requires a greater degree of regulation than does non-hazardous solid waste;

Objectives

Section 1003. The objectives of this Act are to promote the protection of health and the environment and to conserve valuable material and energy resources by -

(3) prohibiting future open dumping on the land and requiring the conversion of existing open dumps to facilities which do not pose a danger to the environment or to health;

(4) regulating the treatment, storage, transportation, and disposal of hazardous wastes which have adverse effects on health and the environment;

(5) providing for the promulgation of guidelines for solid waste collection, transport, separation, recovery, and disposal practices and systems;

SUBTITLE C - HAZARDOUS WASTE MANAGEMENT

Identification and Listing of Hazardous Waste

Section 3001. (a) Criteria for identification or listing - Not later than eighteen months after the date of the enactment of this Act, the Administrator shall, after notice and opportunity for public hearing, and after consultation with appropriate Federal and State agencies, develop and promulgate criteria for identifying the characteristics of hazardous waste, and for listing hazardous waste, which should be subject to the provisions of this subtitle, taking into account toxicity, persistence, and degradability in nature, potential for accumulation in tissue, and other related factors such as flammability, corrosiveness, and other hazardous characteristics. Such criteria shall be revised from time to time as may be appropriate.

(b) Identification and listing - Not later than eighteen months after the date of enactment of this section, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations identifying the characteristics of hazardous waste, and listing particular hazardous wastes (within the meaning of section 1004(5)), which shall be subject to the provisions of this subtitle. Such regulations shall be based on the criteria promulgated under subsection (a) and shall be revised from time to time thereafter as may be appropriate.

(c) Petition by State Governor - At any time after the date eighteen months after the enactment of this title, the Governor of any State may petition the Administrator to identify or list a material as a hazardous

waste. The Administrator shall act upon such petition within ninety days following his receipt thereof and shall notify the Governor of such action. If the Administrator denies such petition because of financial considerations, in providing such notice to the Governor he shall include a statement concerning such considerations.

Standards Applicable to Generators of Hazardous Waste

Section 3002. Not later than eighteen months after the date of the enactment of this section, and after notice and opportunity for public hearings and after consultation with appropriate Federal and State agencies, the Administrator shall promulgate regulations establishing such standards, applicable to generators of hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. Such standards shall establish requirements respecting -

(1) recordkeeping practices that accurately identify the quantities of such hazardous waste generated, the constituents thereof which are significant in quantity or in potential harm to human health or the environment, and the disposition of such wastes;

(2) labeling practices for any containers used for the storage, transport or disposal of such hazardous waste such as will identify accurately such waste;

(3) use of appropriate containers for such hazardous waste;

(4) furnishing of information on the general chemical composition of such hazardous waste to persons transporting, treating, storing or disposing of such wastes;

(5) use of a manifest system to assure that all such hazardous waste generated is designated for treatment, storage, or disposal in treatment, storage, or disposal facilities (other than facilities on the premises where the waste is generated) for which a permit has been issued as provided in this subtitle; and

(6) submission of reports to the Administrator (or the State agency in any case in which such agency carries out an authorized permit program pursuant to this subtitle) at such times as the Administrator (or the State agency if appropriate) deems necessary, setting out -

(A) the quantities of hazardous waste identified or listed under this subtitle that he has generated during a particular time period; and

(B) the disposition of all hazardous waste reported under subparagraph (A).

Standards Applicable to Transporters of Hazardous Waste

Section 3003. (a) STANDARDS - Not later than eighteen months after the date of enactment of this section, and after opportunity for public hearings, the Administrator, after consultation with the Secretary of Transportation and the States, shall promulgate regulations establishing such standards, applicable to transporters of hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. Such standards shall include but need not be limited to requirements respecting -

(1) recordkeeping concerning such hazardous waste transported, and their source and delivery points;

(2) transportation of such waste only if properly labeled;

(3) compliance with the manifest system referred to in section 3002 (5); and

(4) transportation of all such hazardous waste only to the hazardous waste treatment, storage, or disposal facilities which the shipper designates on the manifest form to be a facility holding a permit issued under this subtitle.

(b) Coordination With Regulations of Secretary of Transportation - In case of any hazardous waste identified or listed under this subtitle which is subject to the Hazardous Materials Transportation Act (88 Stat. 2156; 49 U.S.C. 1801 and following), the regulations promulgated by the Administrator under this subtitle shall be consistent with the requirements of such Act and the regulations thereunder. The Administrator is authorized to make recommendations to the Secretary of Transportation respecting the regulations of such hazardous waste under the Hazardous Materials Transportation Act and for addition of materials to be covered by such Act.

Standards Applicable to Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities

Section 3004. Not later than eighteen months after the date of enactment of this section, and after opportunity for public hearings and after consultation with appropriate Federal and State agencies, the Administrator shall promulgate regulations establishing such performance standards, applicable to owners and operators of facilities for the treatment, storage, or disposal of hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. Such standards shall include, but need not be limited to, requirements respecting -

(2) satisfactory reporting, monitoring, and inspection and compliance with the manifest system referred to in section 3002(5)...

## APPENDIX II

Partial Listing of Pending Legislation Affecting Hazardous Waste

Senate

S. 1325 - Hazardous Waste Post-Closure Liability Act (in Senate Environment and Public Works Committee - last hearing held September 28, 1979, more scheduled soon)

S. 1341 - Oil, Hazardous Substance and Hazardous Waste Response Liability and Compensation Act (in Senate Environment and Public Works Committee - last hearing held September 28, 1979, more scheduled soon)

S. 1480 - Environmental Emergency Response Act (in Senate Environment and Public Works Committee - last hearing held September 28, 1979, more scheduled soon)

House

HR 5790 - Hazardous Waste Response Fund Act (Super Fund) (in House Interstate and Foreign Commerce Committee, hearings scheduled soon)

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